



EXECUTIVE SUMMARY

STATE OF ALABAMA

Strategic Highway Safety Plan

Second Edition

Acknowledgements

Preparation of the SHSP 2nd Ed. was a large job that required time and the expertise of specialists from many agencies and organizations. A Steering Team was created to prepare the plan and to seek stakeholder feedback to ensure maximum implementation success in reducing severe traffic crashes. Representatives from the following organizations participated in the Steering Team:

- > Alabama Department of Economic and Community Affairs (ADECA)
- > Alabama Department of Public Health (ADPH)
- > Alabama Department of Public Safety (ADPS)
- > Alabama Department of Transportation (ALDOT)
- > Alabama Highway Safety Office (AHSO)
- > Federal Highway Administration (FHWA),
Alabama Division
- > Sain Associates, Inc.
- > The University of Alabama

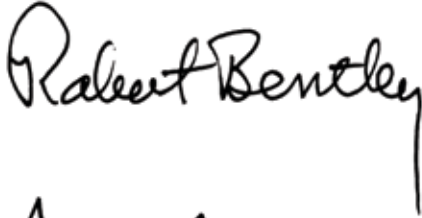
The Alabama Department of Transportation provided funding for the project that developed the SHSP 2nd Ed.

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Strategic Highway Safety Plan for Alabama, 2nd Edition, Executive Summary



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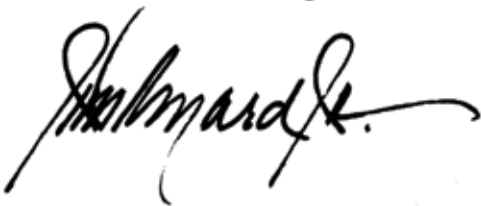
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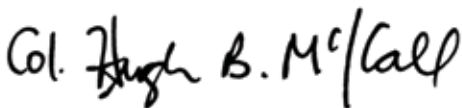
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The full version of the Strategic Highway Safety Plan is available at www.drivesafealabama.org.

What is an SHSP?

A Strategic Highway Safety Plan (SHSP) is a highly-coordinated, statewide plan that establishes optimum strategies, projects, and programs among multiple agencies to reduce highway fatalities and serious injuries on all public roads. Preparation of an SHSP is a cooperative effort of a coalition of stakeholders. Using input from a large number of stakeholders and basing important decisions on analysis of crash data increases the probability of crash reduction. An SHSP seeks to address severe crashes by integrating Engineering, Education, Enforcement, and Emergency Medical Services (4E) into a plan that ensures broad coverage of all aspects of crash mitigation.

In 2004, the Alabama Department of Transportation (ALDOT) prepared its first comprehensive highway safety plan. The plan was converted into an SHSP in 2005 and led to the implementation of numerous safety initiatives that have contributed to saving lives and reducing serious injuries throughout Alabama.

What's New in the Alabama Strategic Highway Safety Plan, 2nd Ed.?

The second edition of the Strategic Highway Safety Plan (SHSP) differs from the initial SHSP in several ways. First, the focus areas (targeted safety activities) were reorganized. Second, the goal shifted to become a Toward Zero Deaths program by working in all areas that influence fatal crashes, including changing the highway safety culture in the State. Third, the SHSP 2nd Ed. incorporates a public education/information element. All three of these changes are explained in the remainder of this document.

ALABAMA'S SHSP HISTORY, STRATEGY, AND SUCCESS TO DATE

In 2006 Federal legislation known as SAFETEA-LU directed each state to develop its own SHSP. Through periodic meetings of representatives of road safety agencies and safety advocates, Alabama had already developed a Comprehensive Highway Safety Plan (CHSP). It was an easy matter to transition the CHSP to the initial SHSP. The planning process and plan results were so successful that the Alabama Department of Transportation (ALDOT) received a national award as the highway safety program of the year.

In 2009-10 an evaluation of the initial SHSP found that it was effective, but could be enhanced by shifting focus and reorganizing the plan elements. Beginning in 2010 a steering committee of 10 representatives of stakeholder organizations used the evaluation of the initial SHSP, analysis of crash data and crash causes, and emerging safety research results to develop the second edition of the SHSP.

Subsequently, five major SHSP component areas were identified that are expected to best address roadway safety in Alabama and are as follows:

- > Driver Behavioral Crashes
- > Infrastructure Countermeasures
- > Legislative Initiative
- > Traffic Safety Information Systems (TSIS)
- > Safety Stakeholder Community

The draft version of the SHSP 2nd Ed. was introduced at the Third Safe Home Alabama Traffic Safety Summit in November 2011. A portion of the Summit included breakout sessions organized around the five SHSP 2nd Ed. components to gather feedback from stakeholders associated with each component. Additional feedback was solicited with follow up requests to each Summit attendee, and to representatives of Alabama roadway safety advocacy groups.

WHY THE SHSP 2ND ED. IS NEEDED

As shown in Table 1, over a recent five-year period Alabama averaged more than 130,000 annual traffic crashes, which caused 999 fatalities and over 38,000 injuries per year. The safety stakeholders who prepared the SHSP and the SHSP 2nd Ed. felt strongly that an annual average of almost 1,000 fatalities was simply not acceptable. It represents 1,000 Alabama families that were traumatized by the loss of a loved one.

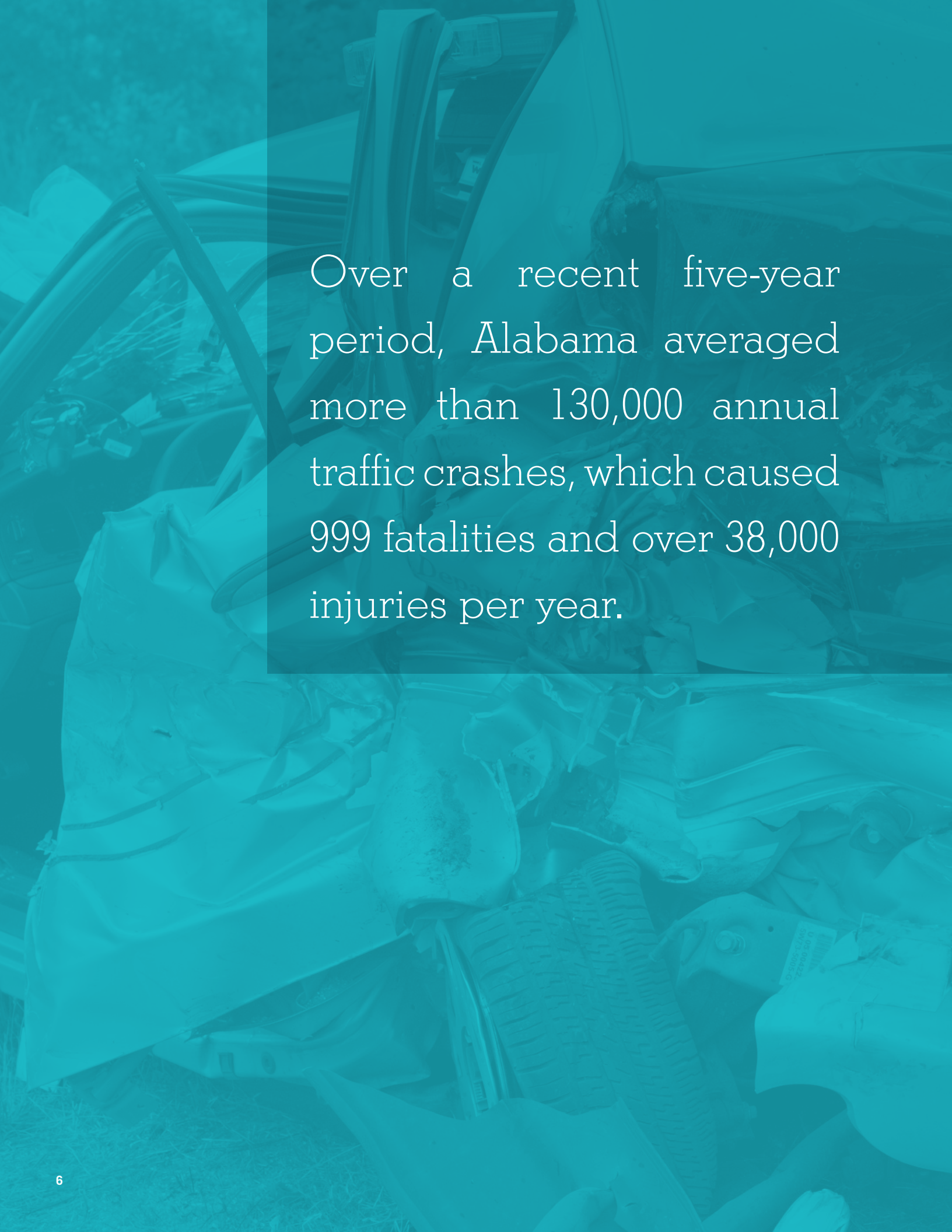
There is some good news in Table 1. Fatalities decreased 29 percent between 2006 and 2010, while injuries decreased by 11% during the same period. However, the current level of about 850 fatalities per year indicates there is still much work to do. The 2010 AASHTO Highway Safety Manual indicates that combining fatal and severe injuries provides the best basis for safety studies. This concept is embraced in the SHSP 2nd Ed., and is shown as the bottom row of the Table.

TRAFFIC SAFETY CULTURE

Culture is the norm accepted by the public. In traffic safety, it is the level of acceptance of risky driving behavior. Public education and enforcement programs have radically improved the traffic safety culture in many other nations, producing significant reductions in fatalities and serious injuries. Following the lead of Federal transportation agencies and US safety

Table 1 Alabama Traffic Crash Statistics

Year	2006	2007	2008	2009	2010
FATALITIES	1,208	1,110	967	849	862
INJURIES	43,000	39,700	35,600	35,969	38,328
CRASHES	139,800	135,300	124,000	123,731	128,384
FATALITIES + INJURIES	44,208	40,810	36,567	36,818	39,190



Over a recent five-year period, Alabama averaged more than 130,000 annual traffic crashes, which caused 999 fatalities and over 38,000 injuries per year.

Figure 1 Long-term Goal for Fatality and Injury Reduction with TZD Strategy



organizations, the SHSP 2nd Ed. calls for a major improvement in the traffic safety culture of Alabama. Part of this is adopting a Toward Zero Deaths (TZD) target goal. TZD makes eliminating fatalities the responsibility of everyone. It uses a broad 4E approach and emphasizes that driver behavior can be improved by attention to safety culture. Factors like roadway engineering, materials, and design impact safety, but appropriate driver decisions have a larger impact. As a result, a strong safety culture is needed to yield safer driving decisions, rather than continue with a weak culture that encourages risk taking.

ROADWAY SAFETY GOAL OF THE ALABAMA SHSP

The American Association of State Highway and Transportation Officials adopted a goal of using enhanced SHSPs and an aggressive TZD program to drive down roadway fatalities to 50% of the current level over a period of 25 years. The Alabama SHSP adopted the same goal but applied it to the combination of fatalities and injuries. Figure 1 illustrates the impact a successful SHSP program could have in Alabama over the long term, starting at the 2010 traffic fatality plus injury level.

Fatalities and injuries are projected to decrease from 39,190 in 2010 to 19,595 by 2035 to reach the 50% reduction and sustain significant TZD progress. This will be achieved by strategic planning, hard work, and the creation of a safety culture that tolerates nothing less than meeting this challenge.

CONTENT OF THE SHSP 2ND EDITION

The SHSP 2nd Ed. addresses five key focus areas, selected by the SHSP steering team through analysis of historical crash data and with an understanding of the important role safety culture can play in reducing traffic crashes. The focus areas incorporate a broad, long-range, and well-rounded approach that encompasses the 4Es.

For the SHSP 2nd Ed. to be successful, adequate resources must be available, it must be actively implemented, and it must be properly evaluated. The SHSP was designed with implementation in mind, counting on the comprehensive and coordinated efforts of multiple safety-related agencies and organizations.

Since a broad, 4E approach is necessary to maximize roadway safety effectiveness, a brief description of the roles of engineering, education, enforcement and emergency medical services is provided in the next several paragraphs.

ENGINEERING

Engineering design of new roads includes built-in safety features based on extensive design criteria, codes and design manuals. These design manuals are continually improved by applying the best results of proven designs combined with findings from applicable safety research. Similarly, traffic control devices are designed and installed using guidance documents that enhance traffic operations and safety using the latest state-of-the-practice methodologies.

The emergence of the AASHTO Highway Safety Manual is of particular interest for implementation of the SHSP 2nd Ed. This document is a significant advancement in roadway safety science, and its application can provide guidance for decision makers from here forward in all elements of highway development from planning through operations and maintenance.

EDUCATION

Changing the Alabama safety culture is a long-term endeavor. As an educational process, it likely will change gradually as the public begins to understand the true cost of risky driving – lost lives and severe injuries – and demands that driving practices be reformed. Drivers must understand what they can and cannot do within safe driving practices. They must also understand the impacts of inappropriate driving actions on themselves and others.

The bottom line is that safety culture can change substantially in Alabama, but individuals must change their expectations and habits for all types of roadway use. Again, this will require extensive educational programs.

ENFORCEMENT

Research has shown that extensive traffic enforcement with a certainty of punishment helps change driving behavior. The impact is even stronger when extensive media coverage focuses attention on directed enforcement efforts. A good example is the “Click It or Ticket” initiative that focused on restraint use and similar campaigns coupled with special enforcement efforts.

It is impossible to provide enforcement on all roads all the time because of limited financial and personnel resources. Instead, enforcement agencies have capitalized on an ability to analyze crash data to identify locations and times of day for specific enforcement activities to reduce the number of severe crashes. Using regular patrols and specialized mobilization efforts, a partnership between the Alabama Department of

Public Safety (DPS), the Law Enforcement and Traffic Safety section of the Alabama Department of Economic and Community Affairs (LETS, ADECA), and ALDOT has helped make great strides in using this method to reduce crashes.

EMERGENCY MEDICAL SERVICES

The time between the occurrence of a roadway crash and the arrival of the victim at an appropriate medical facility is known as the “golden hour” because of the importance of time. The sooner a patient can be transported to a medical facility, the greater the likelihood of saving a life or successfully treating an injury. EMS can reduce delivery time, so it was one of the five emphasis areas in Alabama’s initial SHSP. The Office of EMS and Trauma of the Alabama Department of Public Health (Alabama EMS) was a key participant in preparing the initial SHSP. At that time, the ability to evaluate and enhance EMS responses was limited by the absence of appropriate data at the state and national levels.

When the National EMS Information System (NEMSIS) became operational, the Alabama EMS embraced it and became one of the first five states to implement this program. Next, the National Association of State EMS Officials developed a Model Inventory of Emergency Care Elements (MIECE) to provide assessment tools to help states determine the availability/readiness of emergency response for any roadway segment. The Alabama EMS served on the National working group that helped develop these tools. The creation of NEMSIS and other tools, and the efforts of the Alabama EMS will provide long-term benefits in the form of saved lives and diminished consequences of injuries.

SUMMARY

Each focus area of the SHSP 2nd Ed. is implementable and can yield a strong impact on highway safety. The following paragraphs summarize the activities in each focus area. These summaries include the safety challenge, a general overview of the approach to mitigating the challenge, a list of the strategies to enhance safety, and the agencies that will lead the implementation action items for the particular element.

CHALLENGE

This element of the SHSP 2nd Ed addresses crashes associated with driver behavior. A substantial portion of all traffic crash fatalities and severe injuries in the state of Alabama are attributable to three types of driver decisions: speeding, alcohol use, and a lack of proper seatbelt/restraint use. Focused crash reduction efforts in these areas can mitigate the number of crashes and crash severity typically associated with this type of driver behavior.

Between 2005 and 2010 in Alabama, average annual fatalities related to speeding behavior totaled 324 people. Similarly, the average annual fatalities related to alcohol use totaled 230 people. Addressing these crashes requires focused efforts by the appropriate safety agencies and partners to change driver behavior and promote an improved safety culture.

A rapidly growing behavioral problem that is only beginning to be captured in crash data is the area of distracted driving. According to data from Alabama's Center for Advanced Public Safety, between August 2009 and August 2010 over 1,400 Alabama crashes were related to distracted driving. Multiple states, including Alabama, have legislation pending to ban various forms of distracted driving, but greater focus and public awareness is needed to reduce crashes and injuries resulting from the prevalence of distracted driving.

Another aspect of behavioral-related crashes involves commercial motor vehicle (CMV) safety. Driver actions, work hours, vehicle conditions and other commercial vehicle activities are strongly related to safety.

Focus Area 1: Driver Behavioral Crashes



DIRECTION

Focus on education and awareness programs will improve overall driver behavior and habits, specifically in the areas of speeding, alcohol/drug use while driving and increasing seatbelt/restraint use.

The Highway Safety Plan (HSP) developed by ADECA LETS specifically addresses driver-behavior issues. As a result, the SHSP 2nd Ed embraces the ADECA HSP as the primary resource for focusing state expertise and programs to combat these issues.

For CMVs the focus will be on aggressive enforcement of commercial vehicles, improved CMV inspection and data collection processes, additional personnel, enhanced personnel training and public awareness/ education to reduce CMV crashes. The Alabama Department of Public Safety (DPS) Motor Carrier Safety Unit (MCSU) annually prepares a commercial vehicle safety plan (CVSP) that addresses CMV safety. The SHSP 2nd Ed embraces and incorporates the CVSP to help address behavioral issues involved in highway safety.

PRIORITY STRATEGIES

- > Continue to participate in nationwide initiatives, such as the “Click It or Ticket” Campaign to enforce traffic safety laws.
- > Plan enforcement activities for locations identified as being over-represented in speeding and alcohol/drug related crashes. (Special Traffic Enforcement Program – STEP)
- > Plan monthly enforcement activities in counties identified as being over-represented in non-fatal commercial vehicle crashes.
- > Conduct compliance reviews on Interstate high risk motor carriers.
- > Continue to promote the “Drive Sober or Get Pulled Over” Campaign which consists of signs displaying the Campaign slogan, roadblock checks, saturation and line patrols, and placing added emphasis on areas where a high number of alcohol-related crashes have occurred.
- > Continue to promote the “Take Back Our Highways Campaign” which uses increased enforcement and awareness to address speeding and alcohol use while driving.
- > Continue to conduct Safety Talks with the public, trucking industry and governmental agencies related to commercial vehicle safety.

- > Use Electronic Citation (eCite) and Electronic Crash Reporting (eCrash) to better manage traffic citations and crashes to allow more complete and accurate data to be readily available to law enforcement and traffic safety officials.
- > Continue to provide financial assistance to the Department of Public Safety (DPS) for increased police enforcement on the state highway system.
- > Continue Public Relations initiatives to improve safety culture.
- > Certify additional motor coach inspectors and supervisors and enhance training efforts for DPS Motor Carrier Safety Unit employees.
- > Participate in the Alabama Distracted Driving Summit (UAB and University of Alabama Transportation Centers).
- > Educate legislators, decision-makers and the public by developing and distributing anti-distracted driving campaigns for Alabama.
- > Continually improve documentation and reporting of Distracted Driving related crashes within the State.
- > Continue the Alabama Department of Public Health campaign that warns teens about the deadly consequences of distracted driving.

LEADERS FOR DRIVER BEHAVIORIAL CRASHES

Alabama Department of Economic and Community Affairs, Law Enforcement and Traffic Section

Alabama Department of Public Safety

Alabama Department of Public Safety Motor Carrier Safety Unit

Alabama Department of Transportation

Local Law Enforcement Agencies

National Highway Traffic Safety Administration

University of Alabama’s Center for Advanced Public Safety

Focus Area 2:

Infrastructure

Countermeasures




CHALLENGE

This chapter of the SHSP 2nd Ed. addresses infrastructure crashes at intersections and on roadway segments. It concentrates on features and situations over-represented in fatal and type “A” (incapacitating injury) crashes.

For Alabama in 2010, there were 128,384 traffic crashes. Slightly over 30% of them occurred at intersections and the remainder occurred on highway segments. In a typical year in Alabama, about 27% of all crashes occur on rural two-lane roads. Crashes on rural roads are more severe than those on urban roads, and account for 62% of all fatalities. The most frequent fatal crash type involves some type of lane departure on a rural two-lane road, and most frequently on county roads.





A typical driver in Alabama has greater than one in three chances of involvement in an injury or fatal crash while operating a vehicle over their lifetime.

DIRECTION

Intersection strategies will provide appropriate positive guidance to drivers and for traffic control. For segments, multiple types of lane departure countermeasures will be deployed to reduce roadway departure crashes, and to minimize crash severity when these type crashes do occur.

PRIORITY STRATEGIES

Engineering

1. Categorically assess intersection safety issues.
 - a. Signalized intersections
 - b. Atypical intersections
 - c. Intersections with stop control on state routes
 - d. Intersections without left and right turn lanes
 - e. Freeway ramps and ramp termini
 - f. Roundabouts
2. Segments – Implement programs to minimize roadway departure crashes.
 - a. High risk rural roads
 - b. Median barriers, bridge rail and associated guardrail programs
 - c. Rumble strip/rumble stripe policy
 - d. Pavement widening
 - e. Safety Edge use
 - f. Wet weather crash remediation
3. Segments – Keep drivers on the road and guide their traffic movements.
 - a. Roadway departure
 - b. Traffic control and channelization
4. Supporting Programs
 - a. Methodology for optimization of all projects (site, system wide, policy, etc.)
 - b. Training
 - c. Road safety audits
 - d. Speed management
 - e. Pedestrians and bicyclists
 - f. 10% Report
 - g. Rail/Highway Grade Crossings

LEADERS FOR INFRASTRUCTURE COUNTERMEASURES

Alabama Department
of Transportation

Federal Highway Administration,
Alabama Division

County Engineers

City Engineers

Emergency Medical Services



Education

1. Create a program to educate teenage drivers about the effect of roadway departure crashes.
2. Provide training at all levels on the use of the AASHTO Highway Safety Manual.
3. Educate local government traffic engineers and public works directors.

Enforcement

1. Develop a speed management program.
2. Utilize the enforcement programs outlined in Chapter 2.

Focus Area 3: Legislative Initiative

CHALLENGE

This element of the SHSP 2nd Ed. addresses legislative efforts as a component of a sound traffic safety mitigation program. Focused and appropriate legislation provides the foundation for behavioral related programs. For the years 2000 – 2005, no traffic safety agency or organization was actively reviewing or tracking safety related legislation within the state.

DIRECTION

The initial SHSP recommended reactivating the State Safety Coordinating Committee (SSCC) which now provides comprehensive status reports regarding traffic safety legislation to the Alabama traffic safety community. The actions of the SSCC promote informed decisions by traffic safety professionals regarding appropriate program funding and direction. This activity will continue for the SHSP 2nd Ed.



PRIORITY STRATEGIES

- > Continue to review and update legislative work team membership and related tasks.
- > Provide a list of traffic safety legislation and prioritize it accordingly for crash reduction potential and conduct an annual assessment of traffic data to analyze crashes and citations to identify traffic safety legislation needs.
- > Develop educational materials and provide to policy makers, legislators, media outlets, interested grass roots organizations, and the general public.

LEADERS IN LEGISLATIVE INITIATIVE

Governor's Office

Alabama Department
of Economics and
Community Affairs

Alabama Department
of Public Health

Alabama Department
of Public Safety

Alabama Department of
Transportation

Alabama SAFE KIDS/Southeastern
Child Safety Institute

Alabama Section of the Institute of
Transportation Engineers

Alabama Trucking Association



Children's Hospital

State Safety
Coordinating Committee

Montgomery Highway
Safety Office

West Alabama Highway
Safety Office

VOICES for Alabama's Children,
Coordinator of Policy and
Programs/Kids Count Director

Focus Area 4: Traffic Safety Information Systems

CHALLENGE

This chapter of the SHSP 2nd Ed. addresses the availability and usability of safety-related data and the associated computer hardware and software. Recent development of enhanced scientific tools and procedures to enhance safety decisions created a need for more and better data. Development of a comprehensive safety data collection and management system can substantially promote progress in roadway safety. Current data systems will be reviewed, improved and integrated to address data gaps as the state moves forward with this effort. Ultimately, all agencies with responsibilities for traffic safety will have timely access and appropriate information to identify problems, select optimal countermeasures and evaluate implemented improvements.



DIRECTION

The Traffic Records Coordinating Committee (TRCC) is the action group for safety data issues. It acts as an umbrella under which safety data planning and activities occur both at the direction of the TRCC and by safety related agencies. This committee oversees planning and improvement of the key safety data systems within the state. TRCC ensures that data enhancement moves forward in identified component focus areas (i.e., citation and adjudication data, crash data, driver data, Emergency Medical Service (EMS) medical information, roadway data, vehicle-specific data, etc.). Ultimately, information integration and access will be possible through one source data portal, the SafeHomeAlabama.gov Website.

PRIORITY STRATEGIES

- > Continue to perform Traffic Record Assessments for the state safety data processes to develop recommendations for improving traffic information in accordance with NHTSA formalized processes.
- > Continue to improve existing electronic data systems and provide data exchange mechanisms between the different components using tools such as eCITE, eCrash, CARE crash database, and roadway GIS and mapping.
- > Assist ALDOT in improving infrastructure information systems.
- > Support the Traffic Records Coordinating Committee (TRCC) efforts in developing and implementing a strategic plan for TSIS.
- > Encourage TRCC to meet regularly to work toward a comprehensive data collection and management system.
- > Continue initiatives for implementation of the AASHTO Highway Safety Manual for Alabama.
- > Promote SafeHomeAlabama.gov as primary source for distributing traffic safety information.

LEADERS FOR TRAFFIC SAFETY INFORMATION SYSTEMS

Alabama Administrative
Office of Courts

Alabama Department
of Public Health

Alabama Department
of Public Safety

Alabama Department of Revenue

Alabama Department
of Transportation

Alabama Traffic Records
Coordinating Committee

Federal Highway Administration

Federal Motor Carrier Safety
Administration

Local Law Enforcement

National Highway
Traffic Safety Administration

Focus Area 5:

Safety Stakeholder Community



CHALLENGE

The SHSP 2nd Ed. adopted a goal of moving Toward Zero Deaths (TZD). To make progress toward that goal, significant changes must be achieved in the prevailing safety culture. Safety stakeholders must demand that leaders and managers require improvements in driver behavior. Educational programs must actively inform drivers about the impacts of their decisions on traffic safety. Alabama citizens must demand a stronger traffic safety culture that delivers compelling and timely safety messages to the general public and to specific target audiences. The safety stakeholder community must be a strong voice to motivate motorists to accept these safety messages. As a starting point, ALDOT will refocus its public information and awareness efforts to initiate, in cooperation with others, a campaign that starts a revolution to make Alabama safer... a "Drive Safe Revolution."



DIRECTION

Begin the culture change with a “Drive Safe Revolution” campaign to communicate the need for a paradigm shift in the way drivers think and behave. This strategy will seek to achieve a stronger safety culture in Alabama where safe driving behavior has a greater value across all segments of the population. As part of this effort, ALDOT will take a role that engages safety stakeholders and members of the public to be activists and agents of change within the traffic safety movement.

PRIORITY STRATEGIES

- > Conduct a public information and awareness campaign using strategic outreach methods as part of an effort coordinated across the safety stakeholder community.
- > Activate safety stakeholders through a Traffic Safety Summit, periodic stakeholder meetings, e-newsletters, printed safety materials and Speaker’s Bureau.
- > Lead stakeholders to advocate for improving Alabama’s safety culture.



**START SOMETHING
ALABAMA**

WWW.DRIVESAFEALABAMA.ORG



LEADERS FOR THE SAFETY STAKEHOLDER COMMUNITY

Alabama Department
of Transportation

University of Alabama’s Center
for Advanced Public Safety

Federal Highway Administration

Safety Stakeholders

